P-2602HWUDL-D

802.11g Wireless ADSL VoIP IAD
with Built-in DECT Base Station

Quick Start Guide

Version 3.40
8/2007
Edition 1

DEFAULT LOGIN	
IP Address	**http://192.168.1.1**
Password	**1234**

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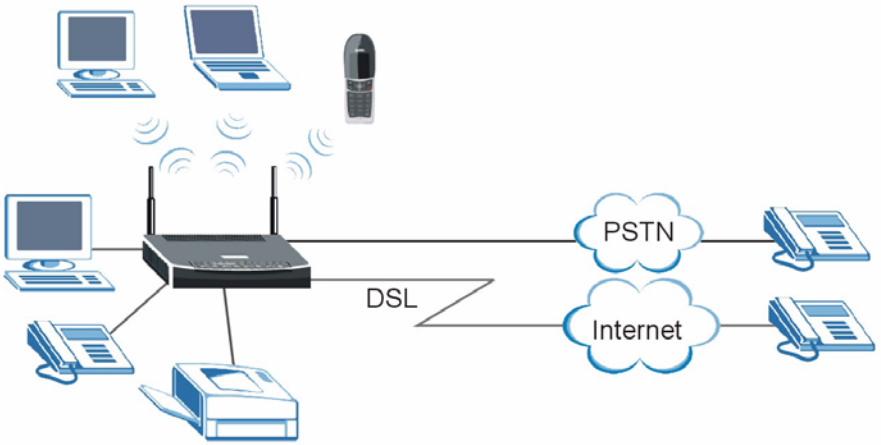
Overview

The P-2602HWUDL-D model is a router which combines high-speed ADSL Internet access, a built-in switch, a firewall and high-speed wireless networking capability. It also has a built-in DECT GAP base station for compatibility with DECT cordless phones, USB 2.0 ports for sharing files via USB compatible storage devices and one phone port for making calls over the Internet (Voice over IP or VoIP). The P-2602HWUDL-D can use regular phone services through regular (PSTN) phone lines and can also function as a print server.



1 Requirements

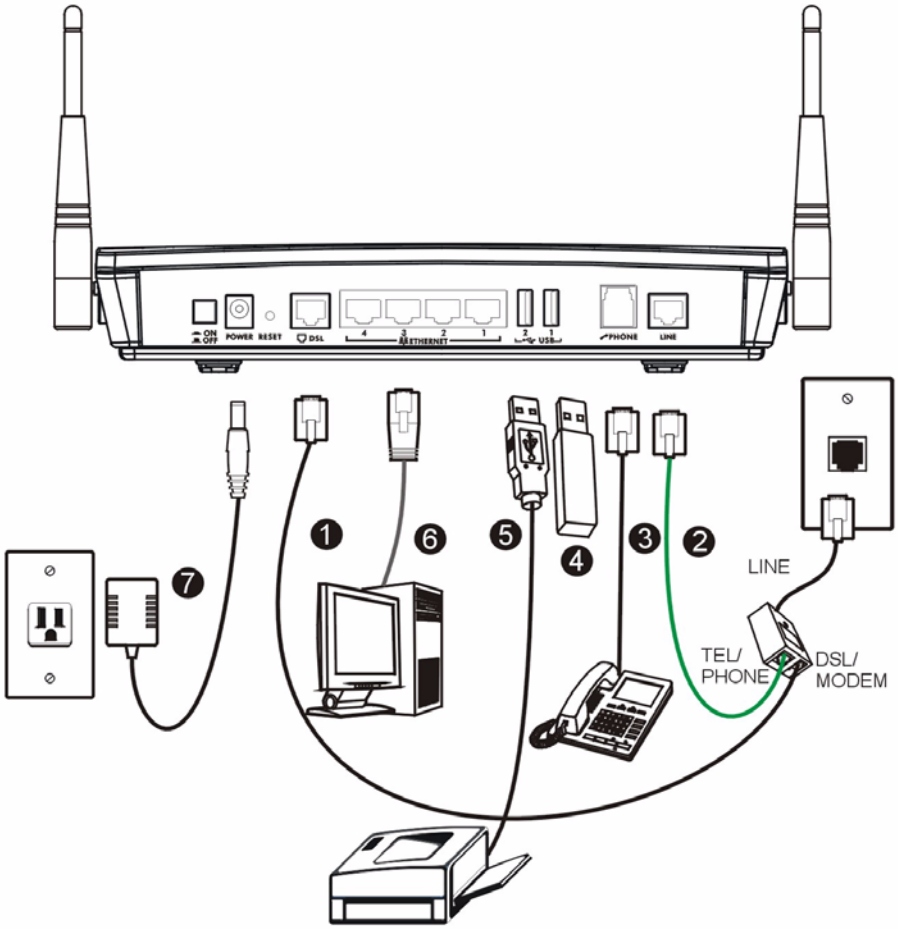
Make sure you have the following things before you set up your P-2602HWUDL-D.

- Internet access - account information provided by your ISP, such as user name, password, and so on.
- VoIP account - You need the account information provided by your VoIP service provider (the company that lets you make phone calls over the Internet).
- Internet Explorer 6.0 or later or Netscape Navigator 7.0 or later, with JavaScript enabled.

See the User's Guide for all configuration details including file sharing and setting up a shared printer.

To read the User's Guide insert the CD that came in the box into your CD-ROM drive. A screen should pop up. Navigate to the User's Guide from this screen. If a screen does not pop up, open Windows Explorer (click My Computer), click on the CD-ROM drive (usually drive D:) and navigate to it from there.

2 Hardware Connections



1 **DSL**: Use a telephone wire to connect this port to the **DSL** or **MODEM** jack on a splitter.

2 **LINE**: Use the green PSTN cable to connect the **TEL** or **PHONE** jack on the splitter to this port. Connect the splitter to a telephone jack.

When the ZyXEL Device does not have power, the phone(s) connected to the **PHONE** port can still be used for making PSTN calls.

3 **PHONE**: Use a telephone cable (and any telephone adaptor provided with your P-2602HWUDL-D) to connect your telephone to this port.

4 **USB 2.0:** Connect a USB (version 2.0 or lower) memory stick for file sharing. The P-2602HWUDL-D automatically detects the USB device.

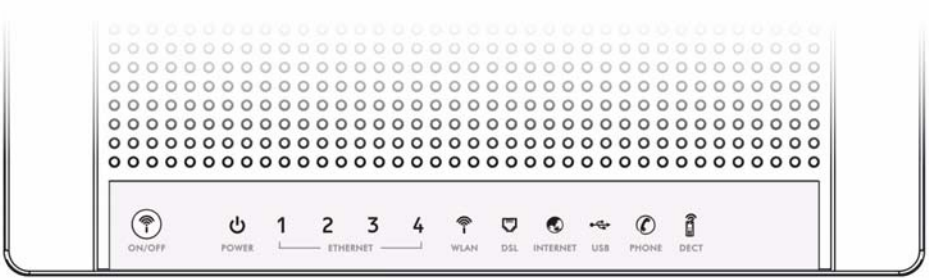
5 **USB 2.0**: Use a USB cable (not provided) to connect a USB (version 2.0 or lower) printer to this port.

6 **ETHERNET 1-4**: Use an Ethernet cable to connect a computer to this port for initial configuration and/or Internet access.

7 Use the power adaptor provided with your P-2602HWUDL-D to connect an appropriate power source to this socket.

8 Push the power switch to the on position.

Look at the LEDs (lights) on the top panel of the P-2602HWUDL-D.



- The **POWER** light blinks during start-up and is green once the P-2602HWUDL-D is ready.
- Each **ETHERNET** light turns on if the corresponding **ETHERNET** port is properly connected. The lights blink when the P-2602HWUDL-D is sending or receiving data through the corresponding **ETHERNET** port.
- The **DSL** light stays on if a physical connection with your DSL modem exists and blinks when transmitting data. The **INTERNET** light stays on when Internet access is available.
- The **PHONE** lights stay on when your SIP account is registered and they blink if the receiver is off the hook.
- The **WLAN** light turns on when the wireless LAN is ready. It blinks when the P-2602HWUDL-D is sending/receiving data through the wireless LAN.
- The **USB** light turns on when there is a USB device (printer or memory stick) connected to the P-2602HWUDL-D.

If the **PHONE** light is on, skip to Section 6 to see how to make calls through the Internet.

If the **INTERNET** light comes on but the **PHONE** light is off, go to Section 4.3 and use the **VOICE OVER INTERNET SETUP** wizard.

If the **INTERNET** light is off but the **DSL** light is on, go to Section 4 and use the **INTERNET/ WIRELESS SETUP** to configure your Internet access settings.

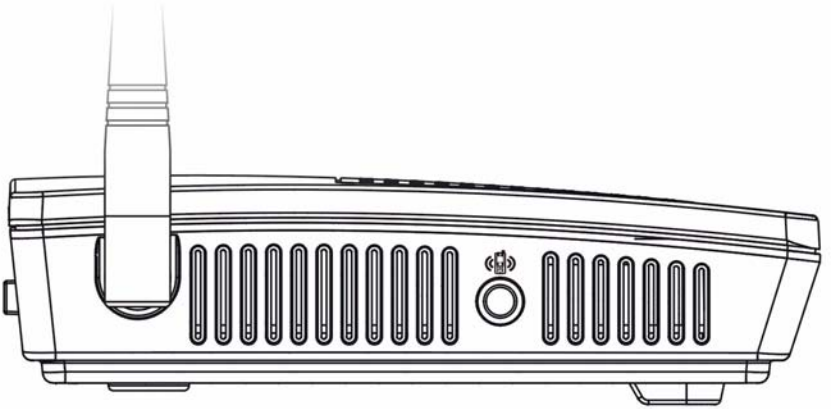
Check your connections if an LED does not turn on. Then turn the P-2602HWUDL-D off, wait for a few seconds and turn it back on. See Troubleshooting. If the problem remains, contact your local vendor.

3 DECT Phone Registration

In order to use your DECT phone with the P-2602HWUDL-D, the DECT phone must register with the P-2602HWUDL-D's DECT base station. Take the following steps to register your DECT phone with the P-2602HWUDL-D.

1 Press down the DECT base station button ( ) on the left side (when facing the LEDs (lights)) of your P-2602HWUDL-D for 6 to 11 seconds. When the **DECT** light begins to blink, the P-2602HWUDL-D is in registration mode. The P-2602HWUDL-D in registration mode for 25 to 30 seconds. Your DECT phone must be registered within the time period.

If you press the DECT base station button for 12 seconds or more, the DECT base station resets and all previously registered DECT phones must be re-registered.



2 Put your DECT phone in registration mode. Refer to your DECT phone documentation.

When the P-2602HWUDL-D is in registration mode, the **DECT** light blinks and the P-2602HWUDL-D starts to scan its surrounding area for DECT phones in registration mode.

To ensure clear communication between the two devices, make sure your DECT phone is within range of the P-2602HWUDL-D during the registration process. See the User's Guide for details.

3 When a P-2602HWUDL-D discovers a DECT phone in registration mode, it sends a request for a Personal Identification Number (PIN). Your DECT phone receives the request and prompts you to enter the PIN. Enter the PIN in the DECT phone by using the handset keypad. Entering a PIN ensures that only authorized DECT phones connect to and use your P-2602HWUDL-D to make and receive calls.

The default PIN of the P-2602HWUDL-D is **1234**.

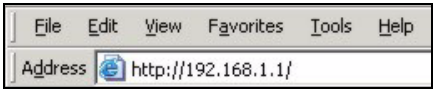
4 Repeat steps 1 - 3 to register additional phones.

You can register up to 6 DECT phones with the P-2602HWUDL-D.

Once your DECT phones are registered with the P-2602HWUDL-D you can assign SIP accounts to make and receive VoIP calls. You can also use DECT phones to make internal calls, see your DECT phone documentation for more information. Internal calls are calls between DECT phones registered with the P-2602HWUDL-D. For the P-2602HWUDL-D you can also assign your DECT phones to receive calls from the PSTN line (regular phone line).

4 Initial Configuration

1 Open your browser and enter the P-2602HWUDL-D's IP address 192.168.1.1 (default) as the URL.



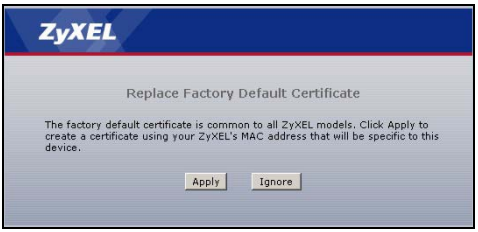
2 Enter the admin password **1234** (default). Click **Login**.

If your browser cannot find this screen, make sure your browser is configured correctly. See **Troubleshooting** in the User's Guide for details.

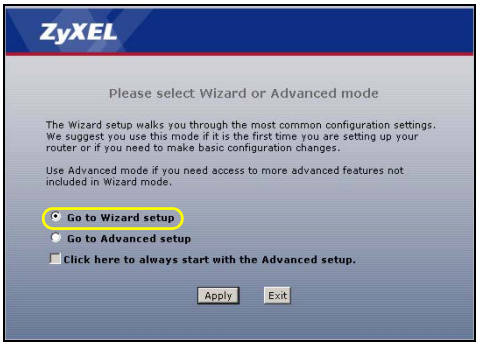
3 Follow the directions in this screen.

ZyXEL
Please enter a new password
Your router is currently using the default password. To protect your network from unauthorized users we suggest you change your password at this time. Please select a new password that will be easy to remember yet difficult for others to guess.We suggest you combine text with numbers to make it more difficult for an intruder to guess.
The administrator password should must be between 1 - 30 characters.
New Password:
Retype to Confirm:
Apply
Ignore

4 Click **Apply** to replace the P-2602HWUDL-D's default digital certificate.


ZyXEL
Replace Factory Default Certificate
The factory default certificate is common to all ZyXEL models. Click Apply to create a certificate using your ZyXEL's MAC address that will be specific to this device.
Apply
Ignore

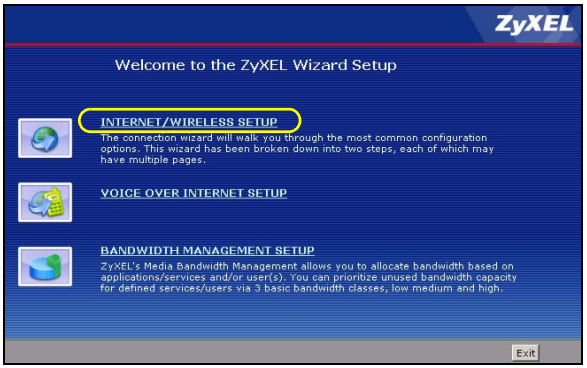
5 Click **Go to Wizard setup**.


ZyXEL
Please select Wizard or Advanced mode
The Wizard setup walks you through the most common configuration settings. We suggest you use this mode if it is the first time you are setting up your router or if you need to make basic configuration changes.
Use Advanced mode if you need access to more advanced features not included in Wizard mode.
Go to Wizard setup
Go to Advanced setup
Click here to always start with the Advanced setup.
Apply
Exit

4.1 Internet/Wireless Setup

The connection wizard helps you set up your Internet connection as well as your wireless settings.

1 Click **INTERNET/WIRELESS SETUP**.


ZyXEL
Welcome to the ZyXEL Wizard Setup
INTERNET/WIRELESS SETUP
The connection wizard will walk you through the most common configuration options. This wizard has been broken down into two steps, each of which may have multiple pages.
VOICE OVER INTERNET SETUP
BANDWIDTH MANAGEMENT SETUP
ZyXEL's Media Bandwidth Management allows you to allocate bandwidth based on applications/services and/or user(s). You can prioritize unused bandwidth capacity for defined services/users via 3 basic bandwidth classes, low medium and high.
Exit

Wait while the P-2602HWUDL-D tries to detect your Internet connection. If the P-2602HWUDL-D cannot detect your Internet connection, follow the directions. Enter the information provided by your ISP. Keep the default settings if your ISP did not provide some information.

To create a wireless network the P-2602HWUDL-D and your wireless computer(s) must all use the same SSID (network name), channel and security settings.

If you do not set wireless security, any one within range could use your P-2602HWUDL-D to access your network and the Internet.

Make sure your wireless security settings are compatible with your existing wireless devices. See the User's Guide for more information on wireless networks.

2 When your Internet connection is setup correctly, the **DSL** LED should be green. When you are finished click **Return to Wizard Main Page**.

Enter the Internet access information exactly as given to you by your ISP in each wizard screen and then click **Next** to continue or click **Back** to return to the previous screen.

Current screen information will be lost if you click **Back**.

4.2 Setting Up a Wireless Network

To set up a wireless network you need at least one wireless network card/adapter.

- If you have a desktop computer, use either a wireless USB adapter or a wireless PCI adapter.
- If you have a laptop, use either a wireless USB adapter or a wireless CardBus card. These are built into many laptops.

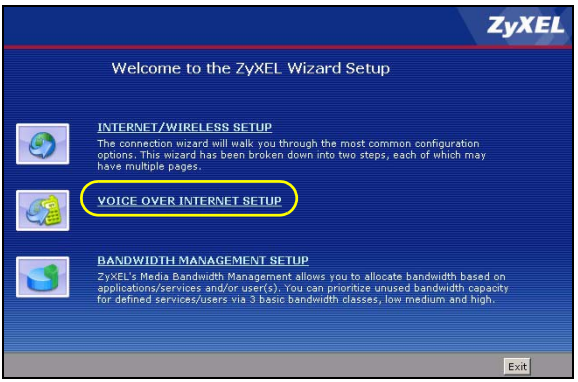
To add a computer to your network you need to configure your wireless-enabled computer with the same SSID, channel and security settings as the P-2602HWUDL-D.

Alternatively, use OTIST, ZyXEL's One-Touch Intelligent Security Technology (OTIST) feature. It allows you to automatically configure the SSID and WPA-PSK on all OTIST-equipped wireless clients within range of the P-2602HWUDL-D. See the wireless LAN chapter in the User's Guide for more information on OTIST.

4.3 Configure VoIP

Click **VOICE OVER INTERNET SETUP**.

You should have the information provided by your VoIP service provider.


ZyXEL
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VOICE OVER INTERNET SETUP
BANDWIDTH MANAGEMENT SETUP
ZyXEL's Media Bandwidth Management allows you to allocate bandwidth based on applications/services and/or user(s). You can prioritize unused bandwidth capacity for defined services/users via 3 basic bandwidth classes, low medium and high.
Exit

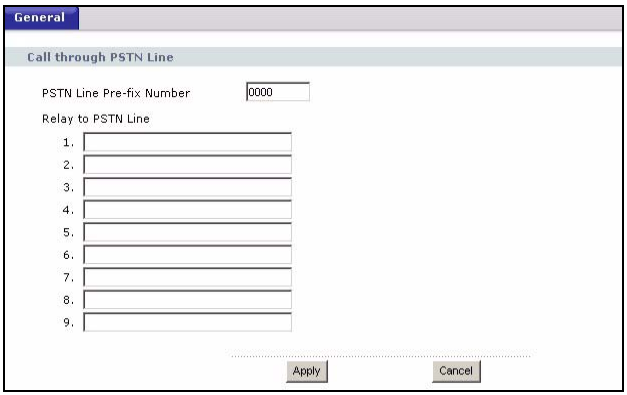
Enter the information provided by your VoIP service provider. Keep the default settings if your VoIP service provider did not provide some information. If you have a SIP account like **1234567@VoIP-provider.com**, the **SIP Number** is **1234567**, and the **SIP Service Domain** is **VoIP-provider.com**. When you are done, the **PHONE** light should be on. Close the wizard and the main screen opens.

5 Regular Phone Line Setup

When one of your VoIP accounts is registered, the P-2602HWUDL-D normally uses the Internet (not the regular phone line) to make phone calls. Follow the directions in this section to make sure you can also use the regular phone line while one of your VoIP accounts is registered.

When the ZyXEL Device does not have power, the phone(s) connected to the **PHONE** port can still be used for making PSTN calls.

In the main screen, click **VoIP > PSTN Line**.



PSTN Line Pre-fix Number: Enter a prefix (up to seven numbers) you dial before you dial the phone number, if you want to make a regular phone call while one of your SIP accounts is registered. These numbers tell the P-2602HWUDL-D that you want to make a regular phone call.

Relay to PSTN Line: Enter phone numbers for regular phone calls (that do not use the Internet) that you always want to dial without the prefix number. For example, enter emergency phone numbers here.

Click **Apply**.

6 Make Phone Calls

Follow these directions to make calls over the Internet.

- If you want to dial a SIP number that only uses numbers (for example, “12345”), dial the number on your phone’s keypad. You can also set up a speed-dial entry, if you want. See the User’s Guide for instructions.
- If you want to dial a SIP number that uses letters or if you want to make a peer-to-peer call, set up a speed-dial entry first. See the User’s Guide for instructions. Then, dial the speed-dial number to make the call.
- If you want to call regular telephone numbers, use your VoIP service provider’s dialing plan.

Follow these directions to make phone calls that do not use the Internet.

- If you set up the phone number in Section 5, just dial the phone number.
- If the **PHONE** light is off, just dial the phone number.
- Otherwise, first dial the prefix you set in Section 5, and then dial the phone number.

Follow these directions to call the phone that is connected to the P-2602HWUDL-D.

- Use your VoIP service provider’s dialing plan, or just dial the phone number.

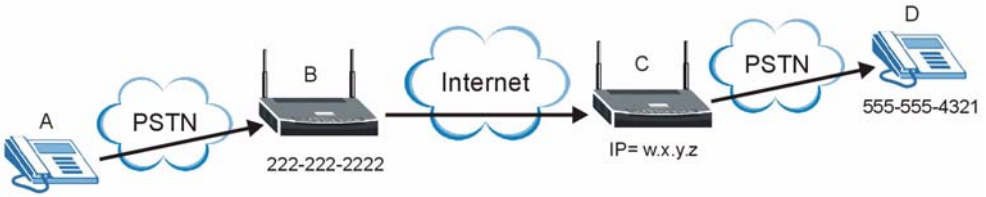
7 VoIP Trunking Overview

VoIP trunking connects an IP network (like the Internet) and the Public Switched Telephone Network (PSTN). PSTN includes the world’s circuit-switched telephone network which is composed of fixed and mobile telephones. VoIP trunking allows you to create VoIP links which PSTN (Public Switched Telephone Network) callers can use to:

- Make phone calls via the Internet - Make a PSTN call to the P-2602HWUDL-D and it forwards the call to any SIP based VoIP phone. In the example below, we call the P-2602HWUDL-D (**B**) from a regular phone (**A**), the P-2602HWUDL-D then forwards the call to a VoIP phone (**C**).

- Save on long distance calls - The P-2602HWUDL-D creates a VoIP link which can be used to connect to a PSTN phone in another country, province, region and so on. Below is an

example of a VoIP trunking call. **A** calls the P-2602HWUDL-D (**B**), **B** makes a VoIP connection to another VoIP trunking device **C** and **C** forwards the call to a PSTN phone **D**.



See the User's Guide for information on how to configure VoIP trunking.

8 USB File Sharing

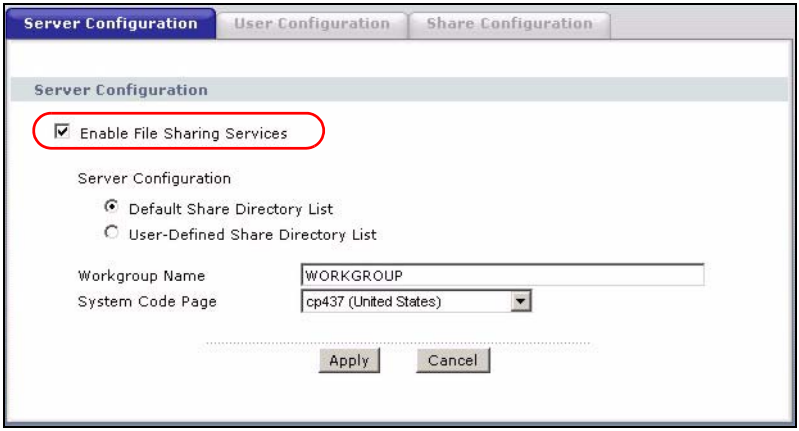
This section shows you how to enable USB file sharing. In order to start file sharing you need to:

- Connect your USB 2.0 file sharing device. See Section 2.
- Enable the file sharing feature.
- Create an account (user name and password) for sharing the files.
- Browse to your files using the IP address of the P-2602HWUDL-D.

8.1 Configure USB File Sharing

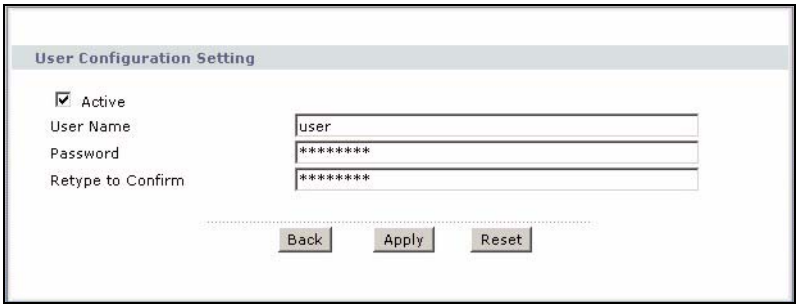
1 Click **Advanced > File Sharing**.

2 Check the box **Enable File Sharing Services** and click **Apply**.



3 Click the **User Configuration** tab and then the **Add** button.

4 Select **Active** in the **User Configuration Setting** section and fill in the **User Name** and **Password** fields. Retype your password and click **Apply**.



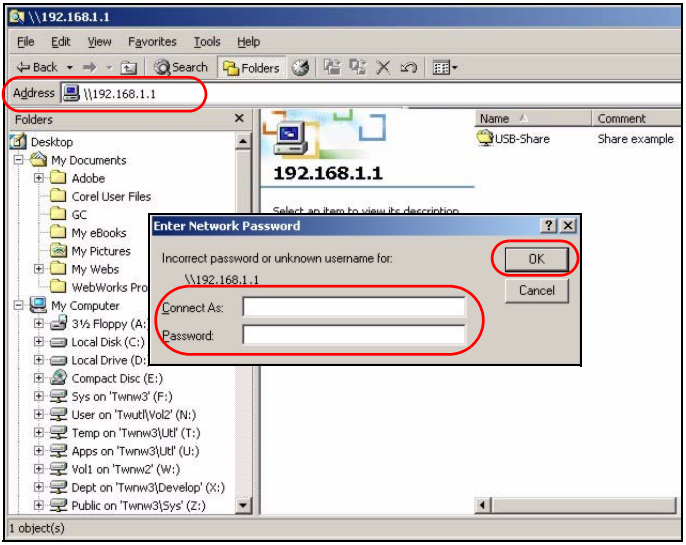
The P-2602HWUDL-D automatically recognizes the USB device which is connected to the USB port and makes it available for sharing.

8.2 Browse to the USB File Share

1 In Windows Explorer's **Address** bar type a double backslash "\\" followed by the IP address of the P-2602HWUDL-D (192.168.1.1 is the default) and hit [ENTER].

2 Enter the user name and password when prompted and hit OK.

3 The files on the USB file sharing device connected to the P-2602HWUDL-D are now part of your file



structure and you can manage those files just like any other files on your computer.

Refer to the User's Guide for a complete description of this feature.

Troubleshooting

If you cannot access the P-2602HWUDL-D, follow these steps.

1. Check the device's lights. If they are different than what is described in Section 2, make sure the connections are correct, and inspect your cables for damage. If the lights are still different, turn off the device, wait a few seconds, and turn it on again.
2. Make sure your computer is on the same subnet as the P-2602HWUDL-D. The P-2602HWUDL-D is set up by default to assign an IP address to your computer. If you have a static IP address on your computer change this setting to obtain an IP address automatically. See the User's Guide for more details.
3. Make sure you typed the address correctly. If the address has changed you can press the **RESET** button for ten seconds to restart the P-2602HWUDL-D and to restore factory defaults. The default IP address is "192.168.1.1" and the default password is "1234".

If you cannot access the Internet, follow these steps.

1. Check the device's lights. If they are different than what is described in Section 2, make sure the connections are correct, and inspect your cables for damage. If the lights are still different, turn off the device, wait a few seconds, and turn it on again.
2. Follow the steps in section Section 4 again. Make sure you enter the correct information. For example, if your account has a user name and password, make sure you type it correctly. In addition, if you are not sure which encapsulation your ISP uses, contact your ISP.
3. If you are using a new Internet account, contact your ISP to make sure it is active.
4. If you still have problems, see **Troubleshooting** in the User's Guide.

If you can access the Internet, but you cannot make calls through the Internet, follow these steps.

1 Check the **PHONE** lights. If neither of them is on, Make sure that your telephone is connected to the corresponding **PHONE** port.

2 Make sure the **VOICE OVER INTERNET SETUP** wizard screens are properly configured (see Section 4.3).

3 You can also check the VoIP status in the **Status** screen. See the User's Guide for more information about this screen.

Viewing Your Product's Certifications

1 Go to www.zyxel.com.

2 Select your product from the drop-down list box on the ZyXEL home page to go to that product's page.

3 Select the certification you wish to view from this page.